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EXAMINER

REITZ, KARL

ART UNIT	PAPER NUMBER
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2624

2

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,068

Applicant(s)

BELLO ET AL.

Examiner

Karl R. Reitz

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification and Drawings

1. The disclosure is objected to because of the following informalities: on page 8 lines 20-26 reference number 528 is used to refer to the "user data module" and reference number 530 is used to refer to the "cover page module." However, in the drawings, reference number 530 marks the "user data module" and reference number 528 marks the "cover page module."
2. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C 102 (e) as being anticipated by Reilly (2002/0133653).
5. In accordance with claim 1, Reilly discloses receiving client data before it reaches a print communication protocol; in one embodiment of Reilly's system, client data is first received in a print server, before being transmitted to the printer (paragraph 0008).

Art Unit: 2624

6. Reilly further discloses distinguishing raw PDL data from other client data; in Reilly's system, only job information is transmitted to the printer, while actual print data is transmitted later (paragraph 0036), this job data is thus separated from raw page data.

7. Reilly further discloses determining if raw PDL data includes a request, which requires the attention of a specific interpreter and a temporary realignment of job management, and processing the request; in Reilly's system, IDP server 80 sends jobs to PDL interpreter 90 (paragraph 0036). Reilly further states that additional interpreters can be provided in the system (paragraph 0036), in which case the server 80 would have to send the data to the appropriate interpreter. The server 80 is further configured to modify the system parameters in order to facilitate printing, such as by adding and removing fonts (paragraph 0036).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly in view of Shively (5,748,860).

10. In accordance with claim 2, Reilly does not disclose expressly accessing PDL dictionary.

Art Unit: 2624

11. Shively discloses accessing PDL dictionary to process PDL operators (col. 2 lines 35-40).

12. Reilly and Shively are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

13. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, use a PDL dictionary to distinguish raw PDL data.

14. The motivation for doing so would have been to have quickly available the definition of the implementation of the PostScript operators (col. 2 lines 35-40), thus enabling the processing of the PDL data.

15. In accordance with claim 3, Reilly discloses determining if the request is a font download; in Reilly's system two-way communication is used to add and remove fonts from a printer (paragraph 0036).

16. Reilly further discloses specifying and engaging the appropriate PDL interpreter 90; in Reilly's system, multiple interpreters are used which support various PDL formats (paragraph 0036), it is obvious that print data of one PDL format would only be sent to the PDL interpreter that is capable of processing the data in that PDL format.

17. Shively discloses a direct path from communication protocol to PDL interpreter (figure 1 data is sent directly to PDL interpreter from computer (col. 1 lines 13-19)).

18. Reilly discloses a path between the communication protocol and the PDL interpreter; in Reilly's system the communication protocol, part of which is system services layer 70, is connected to the PDL interpreter 90 (paragraph 0035 and figure 2).

Art Unit: 2624

19. In accordance with claim 4, Reilly discloses parsing query data from client data; in Reilly's system, part of the job information that is transmitted before the rest of the print data is the dialog queries between the host and printer to negotiate connection to send the remaining print data (paragraph 0022).

20. Shively discloses accessing PDL dictionary to process PDL operators (col. 2 lines 35-40), thus the answer to the queries would be located with the PDL dictionary and sent back to the client.

21. In accordance with claim 5, Shively further discloses that the data store (dictionary) can be updated, since it is a writable dictionary (col. 2 lines 37-39).

22. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly in view of "Inside AppleTalk".

23. In accordance with claim 6, Reilly discloses routing client data to the print protocol module; in Reilly's system, first job information is transmitted to the printer, while actual print data is transmitted later (paragraph 0036), this job data is thus separated from raw page data and the raw data is transmitted later, via the protocol as shown in figure 2.

24. However, Reilly does not disclose expressly other processing is performed on other client data by bypassing the print communication protocol.

25. "Inside AppleTalk" discloses processing client data by bypassing communication protocol (pages 14-14 and 14-15).

Art Unit: 2624

26. Reilly and "Inside AppleTalk" are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

27. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to bypass the protocol and establish a direct connection to the printer for handling certain client data, as taught by "Inside AppleTalk" (pages 14-14 and 14-15).

28. The motivation for doing so would have been to a) allow the workstation and printer to communicate directly ("Inside AppleTalk": 14-15), and b) optimize the use of virtual memory by modifying the print job to conform to the printer's settings ("Inside AppleTalk": 14-15).

29. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanio (5,465,165) in view of "Inside AppleTalk".

30. In accordance with claim 7, Tanio discloses a document processing system (as shown in figure 7), which includes a client 400 in data communication with a print device 1000 through a print communication protocol module (col. 6 line 59 – col. 7 line 1).

31. Tanio further discloses a query parser 500 that detects a query in the client data and routes the query to be answered; in Tanio's system, the PDL/raster image separation controller 500 separates command data (which includes query data since it includes any data other than raster data) from raster data and routes the command data to the PDL interpreter 600 for processing (answering) (col. 7 line 67 – col. 8 line 6).

Art Unit: 2624

32. Tanio further discloses a raw page description language parser 800 that receives non-query client data from the query parser; in Tanio's system, the PDL/raster image-synthesizing controller 800 processes the non-query data (col. 8 lines 9-15).

33. However, Tanio does not disclose expressly a font enabler that establishes an open channel to the print device bypassing the communication protocol module if the raw data includes a font download.

34. "Inside AppleTalk" discloses processing client data by bypassing communication protocol (pages 14-14 and 14-15).

35. Tanio and "Inside AppleTalk" are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

36. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to bypass the protocol and establish a direct connection to the printer for handling certain client data, as taught by "Inside AppleTalk" (pages 14-14 and 14-15).

37. The motivation for doing so would have been to a) allow the workstation and printer to communicate directly ("Inside AppleTalk": 14-15), and b) optimize the use of virtual memory by modifying the print job to conform to the printer's settings ("Inside AppleTalk": 14-15).

38. In accordance with claim 9, Tanio discloses sending client data to PDL interpreter for processing (col. 8 lines 22-39).

Art Unit: 2624

39. "Inside AppleTalk" further discloses using a spooling module to queue the data in the printer (page 14-6).

40. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanio in view of "Inside AppleTalk" in further view of Shively.

41. In accordance with claims 8 and 10, Tanio discloses a query module 600 that interprets the query routed from the query parser (col. 8 lines 3-6).

42. Tanio does not disclose expressly accessing an answer module that locates an answer to the query.

43. Shively discloses accessing PDL dictionary to process PDL operators (col. 2 lines 35-40).

44. Tanio and Shively are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

45. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, use a PDL dictionary to distinguish raw PDL data.

46. The motivation for doing so would have been to have quickly available the definition of the implementation of the PostScript operators (col. 2 lines 35-40), thus enabling the processing of the PDL data.

47. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanio in view of "Inside AppleTalk" in further view of Menezes (5,621,894).

48. In accordance with claims 11 and 12, Tanio and "Inside AppleTalk" do not disclose expressly that job and cover page parsers route data to be examined for cover

Art Unit: 2624

page data, a user data module for processing user data and a cover page module for processing cover page data.

49. Menezes discloses separating (parsing or tagging) cover page data and processing it differently, in order to save transmission time.

50. Menezes further discloses transmitting cover page data after it has been processed (col. 16 lines 1-3).

51. Menezes further discloses that non-cover page data (effectively a new document) are transmitted and rendered at the receiving end (col. 16 lines 1-3).

52. Tanio, "Inside AppleTalk" and Menezes are combinable because they are from the same field of endeavor, namely manipulation and processing of print.

53. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to examine client data for cover page data and separate it from the rest of the client data, as disclosed by Menezes, therefore sending the cover page data separately from the non-cover page data and processing user data separately from the print data, as disclosed by Tanio.

54. The motivation for doing so would have been to reduce transmission time (Menezes: col. 16 lines 1-3).

55. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanio in view of "Inside AppleTalk" in further view of Fritz (2002/0051184).

56. In accordance with claims 13 and 14, Tanio does not disclose expressly that a configuration parser detects and routes configuration requests in the client data

Art Unit: 2624

57. Fritz discloses a device 505 that sends a configuration requests to a printer (paragraph 0047). Fritz further discloses changing the settings of a printer to match those sent in a configuration message; in Fritz's system, a configuration request is sent to a printer and a sending device 208 sends a response indicating that the request was completed after the configuration has been changed to match the request (paragraphs 0064-0066).

58. Tanio and Fritz are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

59. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to use a configuration parser to sort configuration requests out of the client data, the same way the query data was stripped out from Tanio's system.

60. The motivation for doing so would have been to a) ensure that the request for a change in configuration was completed before printing, thereby ensuring that the user's preferences are in fact selected on the printer, and b) further alleviate the PDL interpreter so that it can more quickly process the PDL data for printing.

61. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly in view of Fritz.

62. In accordance with claims 15 and 16, Reilly discloses receiving client data (paragraph 0023).

Art Unit: 2624

63. Reilly further discloses using advance two-way communication to determine if the data includes a font download and processing the font download by adding and/or removing fonts from the apparatus (paragraph 0036).

64. However, Reilly does not disclose expressly that a configuration parser detects and routes configuration requests in the client data

65. Fritz discloses a device 505 that sends a configuration requests to a printer (paragraph 0047).

66. Fritz further discloses changing the settings of a printer to match those sent in a configuration message; in Fritz's system, a configuration request is sent to a printer and a sending device 208 sends a response indicating that the request was completed after the configuration has been changed to match the request (paragraphs 0064-0066).

67. Reilly and Fritz are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

68. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to use a configuration parser to sort configuration requests out of the client data, the same way the query data was stripped out from Reilly's system, and to configure the communication protocol (Reilly: paragraph 0034), as disclosed by Reilly, in accordance with the configuration data.

69. The motivation for doing so would have been to a) ensure that the request for a change in configuration was completed before printing, thereby ensuring that the user's

Art Unit: 2624

preferences are in fact selected on the printer, and b) further alleviate the PDL interpreter so that it can more quickly process the PDL data for printing.

70. It would further be obvious to a person of ordinary skill in the art to disable the printing ability of the printer being updated during the updating process in order to ensure that the update was completed and ready before printing (if it was not the printing would begin in an improper configuration, thus outputting print data improperly). It would also be obvious to re-enable the printer after completing the update, so that the printer could print the data.

71. In accordance with claim 17, as described for claim 16, it would be obvious to disengage printing processes during configuration updates and re-engaging it once it became available.

72. Reilly further discloses channels between the communication protocol, part of which is system services 70, and the client (job dispatcher 84) and the PDL interpreter 90 (figure 3 and paragraph 0035).

73. In accordance with claim 18, Reilly discloses parsing query data from client data and processing the query data; in Reilly's system, part of the job information that is transmitted before the rest of the print data is the dialog queries between the host and printer to negotiate connection to send the remaining print data (paragraph 0022).

74. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly in view of Fritz in further view of Shively.

Art Unit: 2624

75. In accordance with claim 19, Reilly and Fritz do not disclose expressly accessing a PDL dictionary to interpret a query, obtain an answer to the query and send the answer to the client.

76. Shively discloses accessing a PDL dictionary to process PDL operators (col. 2 lines 35-40), thus the answer to the queries would be located with the PDL dictionary, retrieved, processed and sent back to the client.

77. Reilly, Fritz and Shively are combinable because they are from the same field of endeavor, namely manipulation and processing of print data sent from client computer to printer.

78. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, use a PDL dictionary to process the separated query data.

79. The motivation for doing so would have been to have quickly available the definition of the implementation of the PostScript operators (col. 2 lines 35-40), thus enabling the processing of the PDL data.

80. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly, in view of Fritz in further view of Menezes.

81. In accordance with claim 20, Reilly discloses deciding if the client data is print data; in Reilly's system, job information (user data) is sent separately from print data (paragraph 0036).

82. However, Reilly and Fritz do not disclose expressly that a job parser routes data to be examined for cover page data.

Art Unit: 2624

83. Menezes discloses separating (parsing or tagging) cover page data and processing it differently, in order to save transmission time.

84. Menezes further discloses transmitting cover page data after it has been processed (col. 16 lines 1-3).

85. Menezes further discloses that non-cover page data (effectively a new document) are transmitted and rendered at the receiving end (col. 16 lines 1-3).

86. Reilly, Fritz and Menezes are combinable because they are from the same field of endeavor, namely manipulation and processing of print.

87. Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to examine client data for cover page data and separate it from the rest of the client data, as disclosed by Menezes, therefore sending the cover page data separately from the non-cover page data and processing user data separately from the print data, as disclosed by Reilly.

88. The motivation for doing so would have been to reduce transmission time (Menezes: col. 16 lines 1-3).

Conclusion

89. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bradley (5,466,328) discloses methods of parsing and processing print data. Takagi (5,745,663) discloses separately processing query data from print data.

Contact Information

Art Unit: 2624

90. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl R. Reitz whose telephone number is (703) 305-8696. The examiner can normally be reached on Monday-Friday 8:00-4:30.

91. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (703) 305-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

92. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KRR



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